Jimmy F. Howell, M.D.

Biographical Statement

Jimmy F. Howell was born on September 10, 1932, in Winnfield, Louisiana. He received his B.S. from Lamar Technological Institute and his M.D. from Baylor College of Medicine in 1954 and 1957, respectively. Howell interned at Jefferson Davis Hospital in Houston, Texas, and completed his residency at the Baylor Affiliated Residency Program. Howell joined the faculty of the Baylor College of Medicine as an assistant professor of surgery in 1964. He was appointed associate professor of surgery in 1971 and professor of surgery in 1975. Between 1991 and 1996 Howell served as the Director of Vascular Surgery Training Program at the Baylor College of Medicine. Howell has remained a prolific researcher and has co-authored more than eighty articles and papers.

Interview Synopsis

Dr. Howell's interview includes personal recollections on the life and career of the late Dr. Michael E. DeBakey. He reviews Dr. DeBakey's formative training at Tulane University and his burgeoning interest in vascular surgery. Dr. Howell describes Dr. DeBakey's role in the development of the Dacron graft and, later, the DeBakey VAD. Dr. Howell then briefly discusses Dr. DeBakey's personality and his lifelong feud with Denton Cooley. Dr. Howell also comments on Dr. DeBakey's interactions with the political and social elite, including President Lyndon B. Johnson, the Duke of Windsor, and Jerry Lewis. Dr. Howell concludes the interview with a description of Dr. DeBakey's hobbies and family life.

Dr. Michael E. DeBakey Oral History Project
Interview with Dr. Jimmy F. Howell
Conducted on July 9, 2010, by Jason H. Gart

JG: My name is Jason Gart, and I am a senior historian at History Associates in Rockville, Maryland. Today's date is July 9, 2010. We are at the Texas Medical Center at the Baylor College of Medicine. Please state your full name and also spell it.

JH: Jimmy Frank Howell. J-I-M-M-Y, F-R-A-N-K, Howell, H-O-W-E-L-L.

JG: Thank you. History Associates has been retained by the Digital Manuscripts Program of the History of Medicine Division at the National Library of Medicine to conduct a series of oral history interviews with prominent cardiologists and researchers associated with the late Dr. Michael E. DeBakey. The purpose of this oral history is to capture recollections for the historical record and to assist the staff of the National Library of Medicine in developing a *Profiles in Science* website on Dr. DeBakey.

I want to start with your background. You were born in Winnfield, Louisiana, in 1932?

JH: Correct.

JG: You attended Lamar Technological Institute and received your M.D. from Baylor College of Medicine in 1957?

JH: Correct.

JG: What brought you to medicine?

JH: I had a professor of biology at Lamar that was probably instrumental in my going into medicine. I enjoyed the biological sciences and he encouraged me to study medicine, which I did.

JG: Were your parents in medicine at all?

JH: No.

JG: You joined the Baylor faculty in 1964?

JH: In 1963.

JG: And you had a very long association with Dr. DeBakey. Tell me about how you first met Michael DeBakey, and what were some of your first impressions of him.

JH: Well, I really didn't meet him until my residency program, but I knew DeBakey from the time I started medical school, which was in 1953, graduated in 1957. Dr. DeBakey had come here from New Orleans to chair the Department of Surgery at Baylor University College of Medicine. As I remember, he came here in probably 1948 and started the

residency program which he tried to affiliate with Hermann Hospital but was never really successful to the extent that he wanted. He met a fellow here by the name of Ted Bowen, who was then the president of Methodist Hospital, a newly developed young institution. I think probably the hospital at that time had about 350 beds. Bowen suggested that DeBakey affiliate with Methodist Hospital, which he did, and that started a relationship with DeBakey and the Department of Surgery at Methodist Hospital, and it lasted the entire lifetime of DeBakey. That was the beginning of the core foundation of the Department of Surgery in affiliating teaching hospitals, and Methodist was their private institution. The old Harris County Jefferson Davis Hospital was a teaching hospital, and the Veterans Hospital which was then the Houston Navy Hospital and later transformed into the Houston Veterans Administration Hospital at DeBakey's doings. He laid the groundwork to form the Houston Veterans Administration Hospital, and now the name is the Michael E. DeBakey VA Medical Center.

JG: DeBakey was born in September 1908 in Lake Charles, Louisiana, and his father was a pharmacist. His parents were Lebanese. He was the oldest of five children. What stories did he relate about his childhood in Louisiana?

JH: A little bit of this, a little bit of that, and not much of anything other than that I think he was a pretty successful student. Really bright and had read the encyclopedias back and forth a couple of times.

JG: All the siblings did that apparently.

JH: Yes, correct. They were all taught to study intensively. He was a musician. I can't remember what he played.

JG: The clarinet, I believe.

JH: Maybe it was the clarinet.

JG: Or the saxophone.

JH: Maybe both. Anyhow, he grew up in Lake Charles, Louisiana, and later went to New Orleans for his training and met Dr. Alton Ochsner, Professor of Surgery, and they would become good friends. DeBakey initially was in New Orleans with Ochsner and later came to Houston at the request of Baylor to establish the Department of Surgery at Baylor University College of Medicine. I think Dr. DeBakey at first was not sure he could be successful, but after he came and was introduced to the community, his feelings changed.

JG: Going back to his childhood, what do you think brought him to study medicine?

JH: I have no idea.

JG: Did he ever talk about it?

JH: No.

JG: As you mentioned, he did his bachelor's, master's, and his M.D. from Tulane University, and he did his internship and residency at Charity Hospital. Did he ever speak of that time, his medical training?

JH: Well, he never really discussed that in detail, but I think he was a star pupil and excelled in his studies at Tulane University, and medicine was his first choice for a profession. But really, as far as discussing his premedical or internships, I never really discussed it a lot with him.

JG: He did two surgical fellowships. He went to the University of Strasbourg in France and then the University of Heidelberg in Germany.

JH: Well, that was after his residency, yes. He went to study because Europe was the premiere of surgery at the time that he was trained.

JG: Was that typical for someone in the 1930s—to go abroad?

JH: No, it was not real typical by any means, but I think those that wanted to excel or do more than the usual studied abroad.

JG: He was at the Tulane School of Medicine in the Department of Surgery, he was a faculty member there at Tulane, and one of the things that is interesting is he was one of the first to observe the association between a carcinoma of the lung and smoking.

JH: Well, he and Alton Ochsner. Alton Ochsner was really the pioneer of that, but DeBakey and he did the studies and wrote the first papers on association of smoking and carcinoma of the lung, and it was published internationally. And of course Alton Ochsner became the father of the study that there was a direct relationship between carcinoma of the lung and smoking cigarettes. DeBakey was his associate in the university at that time, and he and DeBakey wrote the papers together, so they were associated.

JG: This is sixty years ago, well, seventy years ago now. Smoking was very commonplace in the 1950s and 1960s and 1970s. What did he think of people that smoked? Did he occasionally smoke?

JH: Yes, he occasionally had a cigarette, but not on a regular basis. When I first got to know him, he wasn't too disgusted with people that smoked, but he did not recommend it. Let me say that to you.

JG: The other thing that is interesting about his medical school experience is the roller pump. Speak about that achievement for a moment.

JH: He did that when he was a resident. He started to develop the pump when it became apparent of the need for a method of rapid transfusion for traumatic patients who were bleeding to death. This was a very ingenious method to rapidly transfuse blood into people that needed it quickly. This pump was not a real standard, but it was an invention that later became one of the mechanisms that developed the heart-lung oxygenator. The technology that he developed then is still used today in the heart-lung machines.

JG: Was DeBakey a tinkerer? Did he like to build things?

JH: Well, you know, I don't know about what he did originally as far as tinkering you call it, but he was an innovator in mechanical devices, and he designed a lot of the instruments that we use in surgery. I do not know what he did earlier, but in the time that I knew him when I was associated with him in the Department of Surgery here, he did a lot of innovations in the technology of instrumentation.

JG: During the Second World War he is a colonel in the U.S. Army Reserve, and he was a member of the Surgical Consultants Division. He argued for the stationing of doctors closer to the front, which then becomes what is now known as MASH [Mobile Army Surgical Hospital] units. It was an amazing innovation, one that is used today in Iraq and Afghanistan. Speak a little bit about this innovation.

JH: What he did was he brought the technology, or the surgical or the medical facility, to the battlefront so that you didn't have to take the wounded back some distance to a hospital.

He established the basis that they had the hospitals at the battlefront so that the people who were injured could be immediately cared for, either surgery or whatever they needed.

JG: This is kind of a strange question, but did he ever—I know he did not watch much television—but what did he think of the television show *MASH*?

JH: I don't know. I never asked him.

JG: In 1948, he becomes chairman of the Department of Surgery at Baylor. Walk me through what brought him to Texas?

JH: He was invited to be a Professor of Surgery at Baylor University College of Medicine.

JG: You mentioned before his first impressions of Houston were not—

JH: I don't think they were that great. I don't think he was really quite that interested, but I think with the encouragement of Dr. Alton Ochsner, he decided to take the chair.

JG: Describe his association with Ben Taub.

JH: Ben Taub was a businessman here, and Ben was chairman of the board of directors at the Jefferson Davis Hospital, a charity hospital, and that was the first teaching hospital that

Baylor had as far as the charity hospitals here. After DeBakey became the chairman of the Department of Surgery, of course that was a teaching hospital, he got to know Ben Taub rather well. As a matter of fact, it was a situation where they became pretty good friends, or great friends as a matter of fact. DeBakey and Ben Taub would have their Sunday breakfasts together, and I guess meetings off and on from time to time. But the Sunday breakfast affair was one of the times that they got together, and then Ben Taub would come to the Jefferson Davis Hospital and make rounds with the residents. This was in my time, which I remember because Mr. Taub would come to the hospital in his limousine and get out and they would make rounds throughout the hospital. The hospital didn't have very good air conditioning, it was pretty hot, but anyhow this was the affair. Mr. Ben Taub was very supportive of DeBakey and the Department of Surgery at Baylor, and was instrumental in trying to develop the university into what would become a first-class institution in the United States.

JG: Mr. Taub. He was a real estate developer?

JH: Well, I think Ben Taub had multiple business interests. His original business was a tobacco shop downtown.

JG: He was quite a Houston booster?

JH: Absolutely.

JG: I read that he was even more powerful—well, not powerful, but more of a booster for the city than even the mayor.

JH: Oh, yes.

JG: Today when doctors enter their medical school, there is basic research and then there is clinical research. Do you think DeBakey ever wanted to just do basic research and not do the clinical aspect of medicine? Or, did he always want to treat patients?

JH: I think he always wanted to treat patients, and he coordinated his basic research with his clinical activities. I think he was really a clinical doctor. He was hands-on with the patients.

JG: Let's turn to surgery in the 1950s and 1960s. DeBakey, and you, are really there at the moment that cardiac surgery blossomed. What were some of the challenges of cardiac surgery in the 1950s?

JH: The challenge was the difficulty operating on patients with heart disease because there was no method of support for either the heart or systemic system during the operation and it was a closed technique, which was not that great. You could do mitral commissurotomies with a finger or an instrument through the atrial appendage or the ventricle. The ASDs [atrial septal defect] you could do with a funnel into the atrium which allowed the blood to come up into the funnel with the heart beating and then, with

an instrument, close this ASD. That was not very successful either. But it was an evolution until the development of the cardiopulmonary bypass machine.

Denton Cooley was one of the first here to try to develop a pulmonary oxygenator. They had what we referred to as a coffee pot, and this was a machine that oxygenated blood and it was spewed into a coil helix, and as it came down out of the oxygenator, the blood would be sprayed with a defoaming agent. It was a substance that took the bubbles out of the blood before it was collected and transfused back into the patient. This was a mechanism that Denton Cooley did to repair an ASD, and that was the first of the pumps here. Doctor [C. Walton] Lillehei of Minneapolis later developed a finger pump, and he was successful in doing simple open-heart surgeries. After he developed the machine and had a prototype, he sent one here and Cooley started using this. Then from that mechanism it evolved to the roller pump mechanisms later on. By the late fifties, the pump was a pretty well-established mechanism that could support open-heart surgery.

Of course, history, as I saw it, was that DeBakey at the time was developing vascular surgery, and he let Cooley have the option to do the open-heart surgery as his associate here. So Cooley laid the groundwork for the open-heart business which DeBakey later decided he would also do. The first of the operations that they did was, of course, the congenital types which were the ASDs and the VSDs, or tetralogies, some of the standard congenital heart operations. They were trying to do surgery on the valves, and this was never successful to the extent that it would become a commonplace thing. What we did originally was try to sculpture a valve, like the aortic valve, which would be a calcified

valve with a small opening, and try to remove the calcium and open it up. It was sort of a mediocre operation as far as results.

JG: What were the surgery success rates?

JH: Extremely poor results with high mortality. Then I think in probably 1961 or 1962, Albert Starr in Oregon developed the first successful valve, which was called a Starr-Edwards mechanical valve. This was a ball valve, and he used it successfully, and it was later produced by Edwards Manufacturing, and the Edwards company started mass-producing these valves and distributing it, and this was the thing. That started the real influx of open-heart surgery on acquired heart disease. Cooley and I put the first of those valves here in Houston, and when I finished my residency, DeBakey wanted me to come to work with him, which I did in 1963. He and I developed the open-heart program here at Methodist.

JG: Let's go back for a moment. One of the things that DeBakey realized was that artery disease, or vascular disease, was segmental, that you could have a healthy artery adjoining diseased sections. That was a breakthrough because it meant you could focus on solving the problem. Is that correct?

JH: That is sort of correct. I think we knew the cause is atherosclerosis, but we really didn't know how to cure atherosclerosis, but the disease is segmental in a lot of circumstances. For instance, in the carotid arteries it seemed that most obstructions occurred at the

bifurcation in the neck where the artery split into the external carotid artery and the internal carotid artery, and that was a place amenable to correction with surgery. Also like the abdominal aorta which comes down and splits into the iliac arteries which go on down to the lower extremities. The disease in that instance primarily occurs again in the bifurcation where the artery splits off, and this again was amenable to some type of direct surgery correction. In the early phase it was replacement and then later evolved to a bypass. Now early on, the situation was that they tried to open this vessel with what they called an endarterectomy. Clean it out and then close it or put a patch on it. That was pretty successful, but it did not answer all the questions and problems we had.

Later a bypass technique was developed which was to take, early on, a homograft, which was an artery similar out of somebody else, freeze dry the graft, and refrigerate it in the operating room. You could then take this graft and attach it to an area above the obstruction, and the limbs would go to an area below where the artery opened up. This also was applied to aneurysms of the abdominal aorta where the aneurysmal segment would be removed and replaced with a similar homograft. We found after a period of time that these homografts would deteriorate over a period of time.

JG: Was this because of rejection?

JH: No, it was just a phenomenon that it was somebody else's tissue and it deteriorated over a period of time.

JG: Would it regenerate?

JH: It would not regenerate and the material would become fibrotic, and the elastic fibers would break down and it would deteriorate. When I was a resident, we would take these arteries out in the morgue. I was a Harris County pathologist at the time. When I was in my residency, I did it part time to make a living, and I would take these arteries out and give it to his senior resident and they would then bring it to the Methodist Hospital and the graft would be freeze dried and placed in the operating room for future use.

Because of the breakdown phenomena, a synthetic graft was purposed to take the place of the homograft. In the early phases they were using a substance called Avalon, which was a plastic fiber developed by DuPont. Dr. Edwards of Arizona developed the Edwards prosthetic graft of Avalon, which was also prone to stretching and deterioration over a period of time. DeBakey decided that he would try to develop a graft using Dacron, and this was readily available at the time. He purchased the material from Foley's department store and, utilizing his wife's sewing machine, fashioned the first successful Dacron graft—still a standard.

JG: I read that he went to Foley's department store and asked for nylon and they didn't have any nylon, and they said, "Here, try some Dacron."

JH: That is how it worked. It was a much more durable material, and it did not break down and it would last forever.

JG: When did you first meet Dr. DeBakey, and what was your first impression of him?

JH: I first met him when I was a medical student and he was the chairman of the Department of Surgery. He did not teach a lot because he was very busy. His associates did most of the day-to-day classroom teaching, but he was chairman, and of course we would see him off and on from time-to-time. His office was in the medical school at that time. He was high profile and everybody knew who he was. When I first met him I was a medical student, and then later on when I became a resident in the Department of Surgery, his teaching was firsthand.

JG: Talk about—and you mentioned it before—the aorta coronary artery bypass. Talk about the significance of that research and that type of surgery.

JH: Well, that is another deal. I had joined DeBakey in 1963, and there was a fellow here by the name of Ed Garrett. Ed Garrett was an associate, a year or so ahead of me, and when I came aboard with DeBakey, of course, everything was breaking loose at one time. Valve surgery, aortic surgery, this, that and the other, and Ed Garrett and I did the first work utilizing the autogenous saphenous vein, which is a vein in the lower extremity in the superficial area that you could take out since it was not essential to the flow of blood in the lower extremity—and utilize that as a bypass graft. Of course, it was already being used as a bypass in the superficial femoral artery in the lower extremity, but as far as the smaller vessels, it had never been done.

So Ed Garrett and I, Ed did the first of the posterior tibial bypasses which is an artery in the ankle. We would take the entire saphenous vein out, reverse it, and hook it to the common femoral artery in the groin and take it down to the ankle area to a small vessel about three millimeters, four millimeters in size, and we utilized that on people that had had gangrene of the extremity and there was nothing else to do for them. He did the first of the posterior tibials and that was successful. Then I did the first of the anterior tibial bypasses which is another artery in the foot, and it was successful. So we decided that this is a situation that could be utilized to bypass small vessels. Synthetic materials were employed to bypass the coronaries, or to replace the coronaries, but it was never successful. It just didn't work.

JG: What type of synthetic material did they use?

JH: Dacron was the most common synthetic material to use at the time. Now different materials are used but none of them worked. The only thing that works is arterial materials, either artery or vein to a coronary artery because these arteries are very small. Ed Garrett and I felt that we could perhaps bypass coronaries with vein. At first while working with DeBakey, we did what we called an endarterectomy. We would utilize the heart-lung machine, with a beating heart, find these localized obstructing areas in the coronary arteries, and would open the artery and take the occluding material out and patch with the artery vein. It was a start, and it did work, but it was not ideal because most arteries had multiple obstructions.

JG: What was the success rate for something like that?

JH: I would say probably, maybe 40 percent would be successful. Localized lesions could be reconstructed, but multiple areas of obstruction you would not even try. But the localized area, I would say 40 or 50 percent of them would be successful. Even if they weren't successful, sometimes a patient would make it okay, and even though they may have occluded the artery, they were still going to be okay, but it was not that successful. But the bypass technique we felt was the thing.

In 1964 a cardiologist by the name of Edward Dennis would give us myocardial infarcted patients that were dying and he would say, "Why don't you take them to the operating room and see what you can do?" We would take them and we would try to do bypasses on them with beating heart, and none of them ever made it, but it was a start technique. Finally it was decided that he would give us three patients with coronary artery disease with no ongoing infarction. The third patient we did was a patient in about his forties, and he had a left main obstruction which means occlusion of the left main coronary artery. His right coronary was totally occluded, so Ed and I bypassed this LAD with a vein in 1964. Post-operatively, the day of post-op, we saw that the EKG had evolved an anterior wall infarct, so we felt this was not a good operation at this time. The first two didn't make it, the third one had an infarct, so we sort of backed off and went back to the endarterectomies.

About that time, Don Effler in the Cleveland Clinic was also trying to bypass the coronary arteries. [Dr. René] Favaloro was his associate and working together they performed a successful bypass in 1967, which they reported. We then went back and started doing the bypass and it was successful. The technique was more refined. We knew how to do it, and then about seven years later, the first one we did in 1964, we brought back and studied him, and this graft was open. That was the first successful coronary bypass done in the world, and that was done in 1964. So that is the history of coronary artery bypass surgery.

JG: Talk about Dr. Garrett. What type of doctor was he and where was he trained?

JH: He was trained here. He was trained by DeBakey here in the Department of Surgery. He originally came from Florida but was trained in surgery here. And like some of us, DeBakey when he trained them, he hired them. So he hired Garrett, and then after Garrett, he hired me. Prior to us, he had Cooley and [Ernest Stanley] Crawford and [George C.] Morris, and that was his three main associates. Then he got Garrett and he got me. So that was the five of us. Garrett was a very talented surgeon, and he and I were close friends and we tried to do a lot of clinical research together. Later Ed got hepatitis and left the department and went to Memphis, Tennessee, where he became chairman of the Department of Surgery. So that was his story, and he died about seven or eight years later of cirrhosis of the liver from hepatitis he had contracted here while he was working with DeBakey. I stayed on with the department and am still with the department. I guess I am the last of the Mohicans. I have forty-seven years.

JG: In May 1965, *Time* magazine featured Dr. DeBakey on the cover for his pioneering work in cardiovascular surgery. Was he proud of being on the cover of *Time* magazine?

JH: I think he was. I think DeBakey and Cooley were both egomaniacs. [Laughs] That's not to be quoted. But they had high egos, both of them. They liked to have all the publicity they could get.

JG: In the 1960s, Dr. DeBakey was the first to film surgeries. Talk a little bit about how that evolved and why that is important.

JH: All he did was document the evolution, the history of cardiovascular surgery, how it developed. DeBakey sort of liked to do that anyway. He would produce these movies, and he would come to the operating room, and a fellow here that was the principal of the Arts Department, Gene [Davis] would come. He was very talented in taking and producing movies, and every time there was something new, DeBakey would call for him. First of all, it was a public relations deal. You could show it to the country on the television, and this was not only informative but it was also good publicity for the university.

JG: Let's turn to the mechanical heart or the artificial heart. DeBakey searched for the artificial heart almost his entire career. You mentioned that Denton Cooley—

JH: Cooley was not interested in the mechanical heart. He was interested in heart surgery. At the first, Cooley didn't have much interest in mechanical hearts. DeBakey had that interest.

JG: Dr. DeBakey testified before Congress in 1963 and received some of the first federal support for the artificial heart program.

JH: Yes, that is correct. That is when I went to work with him that year.

JG: Talk about DeBakey's research on the artificial heart.

JH: That was his interest, to try and develop some kind of mechanism that would substitute for the beating heart.

JG: What were the technological and medical challenges in the 1960s for success?

JH: They were just absolutely nil. First of all, we didn't have the material. The pump would beat the blood up too much and the circulation-assisted device was not that refined.

JG: And beating the blood would—

JH: The cells would deteriorate. Then after they got into the conduit that came from the heart, that material was coagulable so the blood would coagulate in the conduit and layers

would embolize and it would kill the patients. It was not a good technique. But anyway, he had two or three different people here. A fellow by the name of [Dr. William] Hall and then there was a fellow by the name of [Dr. Domingo] Liotta in my time, both of them were here, and both of them were experimental surgeons in the lab trying to develop this mechanical device for him. The first of the pumps that was placed was not a total replacement heart but it was an assist device that he and I put in in 1967. This device was placed in a Latin lady that had valve surgery and had heart failure, and we put this pump in and left it in I think a couple of weeks and then took it out, and that was the first assist device or a so-called left heart ventricular assist device that was put in in the world. He and I did that in 1967.

JG: The left ventricular assist device, these were for temporary use?

JH: Yes. Correct. They were not long term. They are trying to get them long term, and with the new techniques and technologies, some go for months. But still, it is not total replacement long term.

JG: I read that the Hufnagel valves, that when they were first implanted, the main cause of death was suicide because the patients couldn't stand the noise of the valves.

JH: That's correct. [Charles] Hufnagel developed this type of valve. It is a mechanical valve, and rather than putting it in the root of the aorta, which is where the normal aortic valve is, he put it in the descending thoracic aorta. This valve was a plastic valve with a poppitt

like a ball. When functioning, the valve was very noisy. You could hear the valve six feet away from the patient, popping. It would drive some patients crazy, because of the continuous noise. "Pump, pump. Pump, pump." They would commit suicide.

JG: Sort of like the Edgar Allan Poe short story with the beating heart underneath the floor.

JH: Right. [Laughs] This was really—it would drive these people crazy. And we have removed them. I removed one here, an old Hufnagel valve, and repaired the aorta and replaced the aortic valve in the root with a mechanical valve.

JG: And was the patient pleased?

JH: Oh yes, of course. This valve was about to wear out anyway. It had been in several years when we removed it.

JG: The artificial device development, these assist devices. The development hit a wall in the 1970s and 1980s. Then there was a resurgence of the technology in the 1980s with the pulsatile devices. There is a famous story of a NASA engineer, and in 1988 they did an implant on a NASA engineer, and DeBakey worked with NASA to help develop the VAD which was an actual flow pump.

JH: Yes, that's the DeBakey VAD. He and George Noon did all the experimental work and designed it and engineered it with the NASA scientists, and his VAD is now used among others in the United States.

JG: The technology today is miniaturized, and about the size of a pacemaker.

JH: Yes, it is pretty small. They've got to be. They put them in children.

JG: And it is a continuous flow pump so there is no pulse?

JH: Right.

JG: Which is kind of eerie?

JH: It's scary, isn't it?

JG: How about transplantation surgery? In 1968 Dr. DeBakey performed twelve heart transplants.

JH: Who's that?

JG: Dr. DeBakey. His work culminated in a multiple transplantation procedure where he did the heart, kidneys, and one lung into four recipients. Speak about the challenges of transplantation, organ rejection, and Dr. DeBakey's exit from transplantation surgery.

JH: Well, Christiaan Barnard performed the first transplant, as you know. I guess in 1967? Close to 1968. It did not take long for us to gear up after that for a transplant program.

JG: What did DeBakey think of Christiaan Barnard?

JH: I didn't really talk to him much about Christiaan Barnard, and he never expressed much about him as far as I know.

JG: Was Dr. DeBakey in the race at all?

JH: At the time, not really. Christiaan Barnard did the first one, and his brother was a resident of DeBakey's here in 1967. He was sort of a funny guy, and not really that popular with DeBakey because DeBakey was pretty short-tempered and you had to really tow the hoe for DeBakey to be impressed with you. But anyway, he and I were in the coffee lounge before he completed his fellowship and he told me "in the next two or three months, you're going to really hear some news." I said, "Oh really. What's going to happen? What's this news going to be?" He said, "You'll see," and it was that. Christiaan was waiting for him to get back so that he could help him with his heart transplant, which he did. His name was Marius Barnard. So they did this first

transplantation and it was successful, and of course the world was bowing and scraping to Christiaan Barnard because he was the most popular guy in the world for a short period of time. Once the word came out, Cooley started doing them here, and then DeBakey started doing them. So everybody started getting in on the act.

JG: Donald McRae wrote a book, *Every Second Counts*, and he talked about how that race to transplant the first heart was almost like the race to the moon between the Russians and the Americans. It captured the imagination of the world.

JH: Yes. But the basic pioneer of heart transplantation was this fellow in California, and Christiaan studied with him.

JG: Is that [Norman] Shumway?

JH: Yes, and he learned the technique of what Shumway was doing, and then went back to South Africa and did it. It sort of took the sails out of Shumway because Shumway had spent all these years developing the technique, and then Christiaan Barnard takes all the credit for it right away. Anyhow, that is the way that worked. The only problem was the transplantation was a very successful, very straightforward mechanism to do. The only problem was rejection. And they really had a lot of drugs they used, but nothing was very successful. So after two or three years they slowed down and virtually quit until they developed the drug called cyclosporine. Cyclosporine really revived transplantation because you could transplant these organs, the kidney and everything else, all kinds of

organs—the kidney, the liver, the lung, the heart—and they were successful. Now the liver and the kidney were probably the most successful long term, the heart being the third most successful, the lung being next. But anyhow, with that drug now, the transplants last a good while. The average for the heart is ten years. Some of them last fifteen, but the average is about ten.

JG: I read that DeBakey's exit from transplantation, because of rejection, influenced others?

JH: Yes, when he stopped, everybody sort of slowed down. They just virtually quit.

JG: That was, I think, in 1984?

JH: Exactly. About that time, yes. That was revived by this fellow from Ohio. What was his name? I'm trying to think. He was a professor of surgery up there, and he was one of the first really good kidney transplant surgeons. I'm trying to think of his name. It just doesn't come to me right away. But anyway, he revived transplantation in general utilizing cyclosporine.

JG: I want to just go back for a second to the DeBakey VAD. I read that the first implant was actually done in Europe, not in the United States?

JH: Yes. He and George Noon went to do that because it was not approved by the U.S. Food and Drug Administration (FDA).

JG: In the 1950s and 1960s there probably weren't any IRBs, or institutional review boards.

JH: Correct. No IRB was necessary for a new clinical operation. The IRBs have slowed down the experimentation tremendously. It takes you so long to get approval of that now that . . . . Experimentation still goes on, but not like it did in the 1950s.

JG: What about FDA approval? What was DeBakey's view of FDA approval? By going to Europe that was a statement on—

JH: I mean he had to. There is nothing you could do. They wanted to get it implanted in a human and they knew it would work. Europe accepted it, and of course they installed it there, and it was successful, and that proved it up. That is where a lot of the experimentation goes right now. Drugs, and everything else, it starts in Europe rather than the United States. In the 1950s it was not that way. Do it in the United States, and if it worked, it worked, if it didn't work, you wouldn't use it.

JG: Is that slowing down innovation within the United States?

JH: Oh, yes. Of course it does. It slows innovation down to some degree.

JG: You have alluded to Dr. DeBakey's personality. He described himself as a perfectionist?

JH: Pretty much, yes.

JG: He worked eighteen hours a day. He was known as Iron Mike. Others called him the Texas Tornado. Others said he was a dynamo, or maybe other phrases. Describe his personality.

JH: I think he was pretty well as people described him. That is about what it was. He was sometimes pretty short-tempered in the operating room. He had to have everything go just right.

JG: How so?

JH: I mean some of the residents, if they weren't holding the instrument just right, he would storm out of the operating room. If the resident was on the floor, and made a mistake, he would fire him.

JG: I have also heard that he would hire them back the next day.

JH: Yes, he would. Sometimes he would hire them back. Just a matter of impulse to start with, but he got thinking about it and he would hire them back. As a matter of fact, when I was a resident and I came on his service, he had two residents working for him, and he fired them both. I was on another service and he made me come over and work for him,

which the rotation was three months and fortunately they had already done a month, so I only had to spend two with him. [Laughs]

JG: As a resident were you scared of Dr. DeBakey?

JH: No, I really wasn't. You had to be just right for him. I don't think I have ever been scared of anybody to that degree. But yes, you would have to make sure everything was right for him. And I got to know him pretty well when I was a resident because Ben Taub's sister was in the hospital and I took care of her, and they liked me, so I would ride in the front seat. [Laughs] She had cancer of the rectum, and DeBakey was taking care of her. Inoperable situation, unfortunately. But she was a nice lady, and Ben would come over and visit her every day.

JG: During surgery Dr. DeBakey would use phrases like "I'm drowning in a sea of incompetence."

JH: Yes, right.

JG: Was that just a show?

JH: I think more of a show, yes. It was not that meaningful, except for the guy that was sitting next to him. [Laughs]

JG: He surrounded himself with excellent people.

JH: Yes, I think he did.

JG: In a C-SPAN interview in the 1990s, he said that he liked to teach because it gave him the opportunity to interact with really bright students. Did he like to teach?

JH: Yes, I think he did. I think he really liked it. I think he liked to have people see him do his surgery, which he called an art. He would do a carotid endarterectomy and he would say, "Now look how beautiful that is." He really thought it was an art, like a master painting, and I think he was very involved with the fact that he could do these things so nicely and they looked so good.

JG: I guess that is different than say a procedure, which is a step-by-step way to do something. An art kind of speaks to—

JH: It is sort of something you make as you go along and it turns out beautiful.

JG: Some people say it is not good to be a perfectionist.

JH: I don't know that it is a bad deal to be a perfectionist. I think it's probably good, particularly in the world we live in. I think you need to be a perfectionist. I think most people realize that if you can do a good surgery, you don't need much post-operative

care. It is all done and over with and then they get well. So you need to be a perfectionist.

JG: Of all the doctors in your long career that you have been associated with, his technique, his hands, are they one of the best?

JH: One of the best, yes.

JG: Was he a better surgeon than you?

JH: No. There has never been a surgeon better than me. [Laughs] I have done about 60,000 cases in my career, and about 30,000 of them heart and vessels. I am just publishing a brochure of forty years' experience. DeBakey was a perfectionist, yes, he was. He was very good. Now, he was better with the vessel surgery than he was with heart surgery because DeBakey was never trained in heart surgery. See, that was something that came after his training, so he adapted to it as it came to be. He was good, but I don't think he was ever as good in heart surgery as Denton Cooley was. But then, of course, that was the primary thing he did. It's like anything else. If you do it repetitively, repetitively, repetitively, the more you do it, the better you get, and that is just the way that was.

JG: How did Dr. DeBakey mentor his students?

JH: Are you talking about the medical students?

JG: Yes. And also the younger generation of people that he worked with. Did he follow the careers of the people that he trained as they went off and did other things?

JH: Yes, he trained a lot of professors of surgery, and yes, he followed their careers. He's got this Michael E. DeBakey International Surgical Society. All these past trainees get together and sort of reminisce and present papers and talk to each other, and it gets everybody back together from the beginning almost. A lot of them are not there. But like recently, we had the combined society of Cooley and DeBakey, and they supposedly made up before DeBakey died, and hopefully they did. But anyway, they had this combined meeting and you would see all these people that he trained from Europe and other places in the world. They do this on a rotational basis. They will do it someplace and then maybe some other place in the world and some other place in the world, so it gives everybody a chance to try to get together.

JG: I read that he would show up at the hospital at all hours of the night checking on his patients. And if you were a resident, you were expected to not leave the hospital.

JH: I am not sure that he showed up all hours of the night. But yes, he expected the residents to be there, particularly in the intensive care unit. If you went on that service, you stayed in the intensive care unit three months and didn't leave, supposedly. Basically you were in there. He insisted that you be there for that period of time.

JG: When you were there, did you do that?

JH: Oh, yes.

JG: Did you leave the hospital or were you there straight for three months?

JH: Well, I was not completely straight. [Laughs] I sort of left two or three times.

JG: Right, you were blessed by Ben Taub?

JH: And the nurses, they sort of liked me, so they would come get me later in the afternoon, sometimes at night, and we would go out for an hour and mess around a little bit and then come back. [Laughs]

JG: Were you married at the time?

JH: Yes, I was.

JG: What did your wife think of the hours that Dr. DeBakey required?

JH: I think that the wives thought it was totally stupid. [Laughs] That's about it. DeBakey would probably go home by 9:00 PM or 10:00 PM, and he would write probably two or three hours, and then would retire, and he would be back in the morning at 6:30 AM. But

that was my routine with him when I was associated with him. Of course I did not have much knowledge of him prior to that other than what people said before I became his associate. When he hired me, and he hired me because Denton Cooley and I put the first heart valves in, and Denton had taught me heart surgery, so I was pretty well in on the current state of affairs. As a matter of fact, when they gave me my board, Don Effler from the Cleveland Clinic came down and he didn't really question me about the surgery, he talked to me about what Denton Cooley was doing. He wanted to know what the state of being was with Cooley, so he had an hour or so to quiz me on that.

JG: Describe Dr. Cooley.

JH: He is sort of the same cut as DeBakey. He is pretty much an egotist and a perfectionist and likes notoriety and he has gotten a lot of it in his lifetime. He is a good teacher. He had his own program teaching the residents. Of course, he was very basic in the foundation of the Department of Surgery with DeBakey, and DeBakey, of course, acquired the best minds that he could, which turned out pretty successful.

JG: I guess one of the most famous feuds in medicine was the rivalry between Dr. Cooley and Dr. DeBakey?

JH: Well, I think that what the deal was was with the operating room capacity at Methodist Hospital, which became sort of limited. Cooley would want two or three rooms and DeBakey would want two or three rooms. Then, of course, other people had to have

rooms, too, like Morris and Crawford and myself. Competition for those rooms was intense at this point in time because every person in the country was coming to Houston, Texas, for heart surgery or vascular surgery. St. Luke's was right next door, and so Cooley started going over there because he had operating space. He had operating rooms, they kowtowed to him, they wanted to support him in every way they could because they wanted his business at that hospital. So it started off just like that and grew to the point that Cooley finally decided that he would just stay there full-time and develop his service.

About the time that all this happened, he was doing heart surgeries and DeBakey was developing this artificial heart. DeBakey was out of town, and Cooley had this patient that was dying and he wanted to put an artificial heart in him. He called Liotta, and Liotta brought the mechanism over there, and he installed it. It never worked, I mean it worked short-term, but he got a lot of notoriety out of it. And DeBakey was pissed off. That was sort of the end of their relationship, and Cooley then resigned from Baylor and stayed at St. Luke's, and then became a professor of surgery at University of Texas. He stayed the rest of his career over there for many years, and DeBakey here at Methodist. It was sort of a rivalry between them, and they didn't particularly like each other because of that one incident. DeBakey's sisters still don't like Cooley, even though they sort of made up. Two of them are still alive here and they don't care for him at all. I think Cooley's tried to put it all behind him. But anyway, that's a long story.

JG: I read in the *New York Times* that Dr. Cooley said that he believed that Michael DeBakey rather expected to get the Nobel Prize and that his team used to play pranks on Dr. DeBakey. They would call up Dr. DeBakey, with a Norwegian or Swedish accent, and say this is Stockholm and then hang up the phone. [Laughs]

JH: I don't know about that. You know, DeBakey did like publicity, and when the first communications satellite called Telstar was launched, a segment was produced by DeBakey. Telstar showed this segment on DeBakey around the world, so millions of people viewed this. John Glenn was an astronaut at that time, and John was invited by DeBakey to observe in the operating room. John observed DeBakey and I replacing an aortic valve and I got to know him quite well. But anyway, this was a first for the satellite televisions, demonstrating valve replacement to the populations.

JG: I remember, and this is a somewhat off topic, but I remember seeing an interview with John Glenn years later when he went up on the space shuttle—

JH: The second time.

JG: Yes, the second time. He was asked if he was the best pilot in the world.

JH: He said yes.

JG: Yes, he did. He said that every pilot has to believe that, or else you couldn't do what you have to do. Is that the same thing with surgery?

JH: Yes, that's right. That's the same thing. You believe you can do it better than anyone else in the world, that is the reason you do it so well.

JG: What was it like for the other members of the surgical staff, that weren't doctors, working for Dr. DeBakey?

JH: I think DeBakey really had no problems with the associated personnel. All the nurses, he got along with them all right. He had this chief nurse that worked for him a number of years, Ellen Morris, and of course she was the chief nurse, and she told everybody else what to do. But as far as DeBakey having any adverse reaction with the associated personnel, not any. He was pretty calm as far as that. The only problem he had was with his associates and students and residents.

JG: He operated on something like 60,000 patients over the course of his career, and he would operate six-and-a-half days and he would have two operating rooms going, and then he would do rounds. I think *Reader's Digest* reported that he would see thirty-seven patients within thirty minutes.

JH: He spent thirty seconds with them.

JG: So, describe this patient interaction and his bedside manner.

JH: I think he had a very good bedside manner. Most people, all they would want to do is see him. He didn't have to sit down and really explain a hell of a lot to them because he was like a god to them. He operated on them, most of them did well, and so we would take him around and he would spend a few seconds with his patients. At one point in time, he had maybe a hundred-and-some patients in the hospital. The maximum I ever had was 120, and that is a lot of patients. So you really don't have a lot of time to spend with details, so you have to have your residents, or your associates, or somebody, sort of fill in for you. But they do like to see you. If somebody operates on you, you want to see them at least once or twice, or two or three times, a couple times anyway.

JG: Just for a comfort level?

JH: Yes, sure. So you would wheel around and just buzz around. Yes, he would see thirty patients in thirty minutes—a minute apiece.

JG: He wrote more than 1,600 articles, papers, or chapters of books.

JH: He was a very prolific writer. Very prolific writer. He wrote about everything. Everything out of his career. He wrote to the end. He was a very prolific writer.

JG: He wrote in a personal essay in the 1980s about the importance of self-discipline, and I want to quote him. He said, "Next to intellectual curiosity, perhaps self-discipline is the most important for continuing education." He was a strong believer in continuing to learn.

JH: Exactly. He used to go to all the meetings, but the older he became, the less meetings he went to, but he still kept up because he still wrote and he still read. He was very interested in new technologies.

JG: I also read that although he was quite competitive, with Denton Cooley, and others, that Dr. DeBakey never felt bad that his techniques would become obsolete. He expected that something that he invented, an innovation, would, as the medical field progressed, become obsolete.

JH: Yes, but I don't know too many things that have become obsolete. Everything that he has ever really done, like the carotid endarterectomy or the coronary bypass, which Ed Garrett and I did the majority of that, but he was there, and it was his patients, so it was basically his department, let me put it like that. Even though he didn't personally do the operation, it was his department that did it, the aorto-femoral bypass, aneurysm resections, arch resections, did the first in the world. I helped him do the first of those operations done in the world.

JG: Describe that one, actually.

JH: It is a matter of taking the aortic arch out, which contains all the vessels that go to the brain and supplying the vessels for the upper extremities. And he developed a technique. The first of it was to perfuse all these vessels with cannulas from the heart-lung machine, oxygenated blood, a very laborious, very time-consuming procedure, but he did the first successful ones done like that. Crawford and other people in the world did the refining of that procedure and got it where rather than a 75 percent mortality, you can do it with a 10 to 15 percent mortality. The technique was refined later on, but originally he did the basics of it. As far as vascular surgery, he was very innovative in vascular surgery, did some of the first bypasses. These things have not ever deteriorated. They are still forefront. Everything like that he's done. Some of the techniques, like I say, have been revived and refined, but basically the same basic techniques he introduced.

JG: Dr. Cooley has written that the competition between him and Dr. DeBakey actually benefited both men because ultimately competition isn't all bad.

JH: I think competition is great. I think you have got to have competition or you don't have anything. If you are competing, you are trying to do something better and better, so competition is great.

JG: Let's talk about Dr. DeBakey on the international stage. He treated people from all over the world. He also assisted in developing the health care and the medical systems in various countries. Talk a little bit about that.

JH: Well, politically DeBakey was always a little to the Left. He was a progressive, and I think in medicine had a little bit more socialistic views than most people. Let me put it like that. That is what I thought of his politics. I think he was instrumental in trying to develop some of these things in the United States. He met with Congress time and time again for his contributions to the institution of health, research-oriented projects that he supported and got from Congress to fund these projects. As far as Europe, I am not sure what his politics were there but I think similar to what his politics were here. I don't think they would change very much. You have got certain ideas of what you want to do, and I think they stay with you wherever you are, whether it is the United States or Europe or wherever you are. He was a progressive for that standpoint in politics and was very active in politics, particularly with Lyndon B. Johnson, that era. Lyndon Johnson was also, as you know, sort of a little bit to the Left. [Laughs]

JG: I guess DeBakey was a Democrat.

JH: Yes.

JG: One of the things that's interesting is that DeBakey operated on the last Shah of Iran. He treated the Duke of Windsor, Yeltsin, Jerry Lewis, he was friends with George Bush, Sr. Other patients included LBJ and also President Richard Nixon.

JH: LBJ was never a patient. He was a friend, but not a patient. As a matter of fact, I operated on LBJ's cousin, and he wanted LBJ to come here because he had heart disease, and he actually wanted him to see me, which he never did do. Of course, he was the President and had a multitude of doctors.

JG: Walter Reed or the Naval Medical Center.

JH: Yes, he had a medical center with the Army and the Navy, and he never had a study of his coronary arteries. He had coronary artery disease and ultimately died of congestive heart failure because he never had anything done about his heart, and he kept having problems. I used to go bird hunting down in south Texas, and he would come down to south Texas with a group. George Brown had this hunting area, and I had operated on George Brown, who's president of Brown and Root, and so they invited me, and this is how I got on the tail of it. But anyway, I got to know LBJ as he got older and more diseased. He would come down, but he did not hunt. He was just out of juice.

JG: Dr. DeBakey was associated and dealt with all these people on both sides of the political spectrum. Did he talk politics with them?

JH: These people that he was associated with, like LBJ?

JG: Yes, LBJ but also Nixon or Bush, Sr.

JH: Oh, yes. I think he talked politics with them, yes. I don't know what his politics were. I never really delved into what his total political situation was. All I know is what I observed, and that is I think that he was a little bit more progressive, a little bit more to the left. Not much, but a little bit. He never really believed too much in England's health care, but I think he also believed in more of an allied health plan where you had super surgeons here, next down the loop and a next down the loop, and these people were all the people that really needed the—complicated surgery were sent to a more third-tier place. That was his idea.

JG: I think the regional—

JH: Yes. Regional medical care. Exactly.

JG: I read that he was able to influence politicians by mentioning his treatment of celebrities. He was so proud of the fact that he had operated on Jerry Lewis because that was a great story to use to help get funding for this or that.

JH: Well, you know, he was friends with Jerry Lewis, he was friends with Frank Sinatra. As a matter of fact, Frank Sinatra introduced him to his second wife. I'm not sure that you got that correct that he operated on Jerry Lewis. Jerry Lewis was operated on in Nevada, and DeBakey went out right after he was operated. But they were good friends, a hundred percent, but I think the surgeon out there operated on him before DeBakey could get connections. I don't mean to correct you, but that's the way life is. That's what he

did, and DeBakey didn't like it very much. Anyway, they brought him here after he was operated, and he convalesced here.

JG: How about the Duke of Windsor?

JH: Yes, he and his wife were here, and he was an introverted little fellow. As a matter of fact, I helped DeBakey operate on him. He had a little aneurysm, probably about five centimeters, and it was a big deal. DeBakey operated on him and kept him here in the hospital for I guess a couple of weeks after he operated, and he recovered very well. We got to know them, and they were royalties you would expect. You know, a little bit spoiled. You expect that, though. They were royalty.

JG: I read that the Duchess was a bit difficult to deal with.

JH: I little bit difficult, yes. She was difficult; he was not. He was plain vanilla.

JG: DeBakey also had a great interest in secondary, high school education, and he started a High School for Health Professions.

JH: Yes. Out here.

JG: Talk about how that came about or what you know about that.

JH: I don't really know a great deal about it other than they wanted to have this school that would prep students for a medical education. Of course, DeBakey was the king of medicine here in Houston, and so what could they do better than develop an institution that had his name and his support for a pre-learning area for medical students. This is what it was designed for, and it is quite a successful venture for children here. It is turning out okay. It was supported by Houston and taxpayers and others. But it is a pretty nice little institution.

JG: Dr. DeBakey really does emerge as a medical statesman in a sense.

JH: Yes, I would say for sure.

JG: In 1949, early on, he is on this Hoover Commission on Organization of the Executive Branch of the Government, and then as part of that he helps create the National Library of Medicine, and he is chairman of the Board of Regents on the National Library of Medicine on two occasions. You mention he was also an advisor to LBJ and the Great Society health program. Lyndon Johnson appointed him on the President's Commission on Heart Disease, Cancer and Stroke. How do you think DeBakey liked that role as medical statesman?

JH: Very well. I think it was right down his alley. I think he liked it very, very much. He found it very satisfying to his personality.

JG: He also did a lot of work for the VA hospitals. He said that the solution to the health care problem in the United States would be the VA system, that he would take the VA system and use that as a model.

JH: That is what I call socialistic medicine.

JG: Or nationalized?

JH: Nationalized health. Now, he never did really dwell on that a lot because I think a lot of people that he associated with weren't for that, and I think that that was his basic opinion, but he didn't advertise that a lot. I think that early on as I saw him in his career, he was more toward a nationalistic system than later in his life.

JG: He also came of age in the 1930s when doctors did house calls, and if a patient couldn't pay a fee, something was worked out. During the course of his career, health care changed. It became a big business. What were his thoughts on that?

JH: Well, like I say, I think he thought that some kind of centralized health care was better than just the ordinary way that it had been done, and I think that was his push. Even to his end, I think that was his idea.

JG: What did he think of health insurance companies and HMOs?

JH: I'm not really sure. When Medicare came into being I was working with him, and I think all of us felt that it was not a good system and it would probably drive us into bankruptcy. As it turned out, Medicare was probably one of the more liberal things that doctors ever had because it paid like a slot machine to doctors. They would come in and they would do some operation, and they would charge a price for it and the health care system would pay for it. Just like that.

Now whether this was designed initially to do this, I'm not sure. But whether or not it was a situation designed to take the doctor in, and later cut his salary, and tell him what to do, it may have been a whole different deal. But anyway, when Medicare was first brought in, we did not like it very much. We got to like it because we could operate, send them a bill, and hell, they would pay whatever you wanted. My fees were always pretty medium. I charged about what I saw it was worth for a heart operation, but some of these fellows would maybe charge about three times what it was worth and were paid.

JG: Dr. Henly said, and I thought it was fascinating, he said that before Medicare doctors would have patients and the expectation was that they might never get paid. The government did not realize that doctors had all this charity work on their books.

JH: That is what we did. If you had a patient that was admitted to the hospital and couldn't pay, that was charity work, and we did a lot of charity work.

JG: This could be 10 or 20 percent of your business?

JH: Oh, yes. Maybe 20 percent of your total. That was all charity work, and the doctor didn't mind doing it. I have operated many charity cases, and you sort of felt good about it. You would operate on somebody, they couldn't pay, we say okay, "If you ever get to where you can pay, then come pay me." Otherwise, I'll keep treating you and keep seeing you. That was just the deal. Then after Medicare came into business, everybody got paid. And like I say, some of these bills were exorbitant until the government felt like everybody else would, well, we can't do this any longer. They started cutting back on the payments. Back, back, back, back. The private insurers did the same. They modeled Medicare. When Medicare would drop, they would also drop back. So right now, doctors make all right, but they are not doing near what they maybe should be doing, I'll put it like that. It is getting tighter and tighter because you see health care expenditures rise. What are they? A sixth of the national economy, about? We can't stand it. But I don't think it is the doctors. I think these allied health care systems, hospitals, drugs, tests, that is where the expense is, not the doctors. It is these allied associated products that you get, MRIs, X-rays, etc.

JG: And physicians order more tests because they are afraid that in a litigious society, they are going to get sued, and it then becomes a vicious cycle.

JH: Exactly. And it is easy, too. I mean rather than doing a physical examination, you just get an ultrasound of the abdomen or a CT scan of the abdomen. It makes the examination pretty easy. It is somewhat laziness.

JG: You mentioned that Dr. DeBakey supported Medicare, but most of the doctors or the medical community were against it. The AMA was against the Medicare program as well.

JH: Exactly.

JG: I saw a C-SPAN interview where DeBakey argued that we spend a good amount of money on defense spending, but it is worthless if people aren't healthy.

JH: Yes.

JG: I have a few more questions. Dr. Noon has been quoted in the *New York Times* saying that over the years there were many DeBakeys. "He was chancellor, the chairman of the department of surgery, the teacher, the national and international leader." What role do you think DeBakey liked best?

JH: I think he liked the chairman of the Department of Surgery most. That is what I think. He has had them all. He was president of the school for a period of time, but I think he liked to be the chairman of the Department of Surgery.

JG: Let's talk a few minutes about his family life. You mentioned his first wife. He had four sons and a daughter?

JH: No, no, no. He had four sons from the first marriage, daughter from a second marriage.

JG: Did any of them go into medicine?

JH: No.

JG: You would think that he would push his kids into medicine?

JH: I don't know. I have six children, and I have one that is a nurse, a daughter, and of the six, she is the only one in medicine. So I don't know why people don't do things. I guess that they have their own ideas, and maybe they looked at him and saw he was working too hard. Maybe they didn't want to do that. Two of them were lawyers, one of them was a businessman, DeBakey, Jr., sort of a businessman, and the third one, I think he ran a restaurant. A restaurant saloon-type business, you know, bar.

JG: Was his wife supportive?

JH: Diane DeBakey, his first wife? Yes, she was.

JG: I guess it was in *Reader's Digest*, in the 1950s or 1960s, that said, "He spends no leisure time, he allots a paucity of time to family, and runs on an abbreviated sleep schedule."

JH: Well, I'm not sure about all that. I think that his time was like all the rest of us. He spent as much time as he could, but what he was doing occupied most of his time, let me put it like that. I do not think he intentionally didn't spend as much time with his family as he could. I think it was just the fact that he was so busy that he didn't have that time, like all of us. I had six children, and my schedule was the same as his. Maybe even a little more from time to time, because you got up in the morning and you operated until ten o'clock at night, and then you saw patients for the next two or three hours, and then you went home and you slept four or five hours and you came back and went to work. That is what I did for twenty, twenty-five years. I don't do it anymore, but I used to, and that is a rigorous schedule, at least five days a week. The sixth day I didn't work. If I had to, I did, emergencies. That was the same thing he did, same deal. He taught us all the same thing. We all were sort of out of the same cut, so we all tried to do the same thing and that included him, Crawford, Cooley, Morris, and myself. It was just basic real life. And their families, I have been married to the same woman for fifty-five years, and we had six children and they are all nice children and they are all productive individuals, and so somehow even though I did not spend that much time with them, they evolved as good children and good, productive individuals, and I think the same with his. I know his children and have known them pretty much all of their lives, and they were all nice people.

JG: Did he have any hobbies? I read that he loved sports cars.

JH: He liked automobiles.

JG: He owned a Porsche, a Maserati, a Ferrari?

JH: Yes, he had a Maserati. The Maserati or the Porsche, one of them was given to him by a patient of his. He liked to drive and he liked to drive fast.

JG: Yes, I read he liked to drive fast, too.

JH: He would drive fast. He and I lived in the same direction, the same area. Not real close together, but the same area, and he and I would come in to work the same time every morning. One morning I was driving to work and we all got in pretty close, and I had gone down the hill on Main Street, and I saw that Maserati on its side. He wasn't there, but I knew his car, and so I came over to the hospital, and sure enough, they brought him over to the hospital. He wasn't hurt. But this pediatrician was coming south, and DeBakey wheeled out in front of him. John had this big old clunker he was driving and he was driving pretty fast, and DeBakey pulled out in front of him and hit him, and he just turned him over and just destroyed the Maserati. There wasn't anything left. Well, it wasn't that bad, but it was not repairable. [Laughs]

But he liked cars, yes. He had a couple of old cars, I think a Model A. It was an old car. A couple of them, I think, and he liked to pick around in them. He liked these power cars, and he had a Dodge Charger he drove, and goddamn, this thing had an engine as big as a locomotive. He would drive, we would leave here at this hospital, and we had an

outlying place down here. The hospital had gotten to where we needed more space. So we had this what we called an annex, and it was about two miles out here. He would leave here in that Charger and he had an underpass to drive under and everybody's in there with him, and they thought he was going to crash that thing. But he liked to drive it. Yes, he liked automobiles. That I think may be his biggest hobby he had was automobiles, and he liked to eat Cajun food. He really liked Cajun food—crawfish and gumbo. I guess that was his upbringing in Lake Charles, you know, French people.

JG: In an interview in 1980 DeBakey said that "I'll let the medical historians assess what I have done." I'm wondering what your assessment of his career is.

JH: I think that he put vascular surgery on a world map. That is what I think. I think he was not the beginning, but he was the founder and probably one of the most ardent people to push vascular surgery to its height. He also was the founder of cardiovascular surgery even though he was not the first. I think DeBakey had his place and is going to have his place in history, like this fellow [Alfred] Blalock at Johns Hopkins. He was probably more innovative than Blalock as far as new procedures and techniques. I think he really helped society considerably, both training doctors and producing these new techniques that came forth. I think he will be known for that.

JG: What were some of the most important things that he taught you about surgery, about teaching, about surgical research and patient care?

JH: Just about everything he did, he taught me. Perfection, most, perfection. That was the thing he taught me, that if you did it right, everything else just works out well. And also as far as research, development, it was a very important product in your life. Patient interaction, you needed to be a morally good person to counsel people, give them the best you can. I think all these things that he represented he taught his students.

JG: Last question. If you have one piece of advice, one lesson learned from your association with Dr. DeBakey that you would like to pass on to a future surgeon operating ten or twenty years in the future, what would that be?

JH: I think you need to be honest with yourself. That's the most important thing that you do, and have integrity.

JG: Dr. Howell, thank you very much. It was a real pleasure.

[End of Interview]